THE OCCURRENCE IN AUSTRALIA OF *CHTHONIUS TETRACHELATUS* (PREYSSLER) (PSEUDOSCORPIONIDA: CHTHONIIDAE)

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Abstract

The introduced pseudoscorpion species *Chthonius (Ephippiochthonius) tetrachelatus* (Preyssler) is recorded from Australia for the first time based on specimens collected in a suburban garden in Melbourne, Victoria.

Six genera of Chthoniidae have been recorded from Australia (Harvey 1981) and all of the species so far described appear to be endemic. Thus, specimens of *Chthonius tetrachelatus* (Preyssler, 1790) recently collected under rocks in a suburban garden in Melbourne, Victoria are of interest because this cosmopolitan species has not previously been recorded from Australia. It is widely distributed in Europe, North Africa, North America (Vachon 1941a) and Argentina (Hoff 1950), and is often found in greenhouses and gardens (Jones 1980). *Chthonius tetrachelatus* has been described several times in the literature (Hadži 1933; Vachon 1941a, 1941b; Dumitresco and Orghidan 1964; Ćurčić 1972; Legg 1975), but an abbreviated description of the Australian material is provided to allow for comparison with specimens from other countries.

Terminology follows that of Chamberlin (1931).

Chthonius tetrachelatus (Preyssler)

Material examined: VICTORIA: Surrey Hills, 11 Sept. 1981, M. S. Harvey, under rock in garden, 2 ♂, 3 ♀, 1 tritonymph (MH347.01-06), deposited in Museum of Victoria, Abbotsford; same data except 9 Jan. 1982, 1 ♀ (MH356.01), deposited in Australian National Insect Collection, Canberra.

Description: Pedipalps: femur 6.26-6.32 (♂), 5.56-6.29 (♀), tibia 1.95-2.14 (♂), 1.96-2.00 (♀), chela 5.41 (♂), 4.92 (♀) times longer than broad. Fixed chelal finger with 21-22 (♂), 24-26 (♀) teeth, the first 14-15 of which are separated by two to three times the basal length of a tooth; moveable chelal finger with 17 (♂), 18 (♀) teeth, the first six to seven widely spaced and separated by approximately three times the basal length of a tooth; moveable chelal finger without proximal lamella but with a pronounced apodeme. Anterior eyes corneate, posterior eyes represented by a white spot; separated from each other by a little less than the diameter of one eye. Carapaceal chaetotaxy: mm4mm: 6: 4: 2: 2, occasionally extra microsetae (m) are present on anterior and posterior rows (see below). Chaetotaxy of sternites II-IV: ♂, 10. (3)14-16/10(3): (2)7(2); ♀, 10: (3)9-10(3): (2)7-8(2). Genitalia as described by Legg (1975) except for the distal ends of the male dorsal apodeme which are blunt and irregularly serrate in the Australian specimens but acuminate in Legg's figures.

Dimensions (mm) ♂ (♀): Pedipalps: femur 0.595-0.60/0.095 (0.64-0.66/0.105-0.115), tibia 0.215-0.235/0.11 (0.25-0.26/0.125-0.13), chela 0.78-0.805/0.145 (0.865-0.89/0.18), hand length 0.315-0.325 (0.37-0.385), moveable finger length 0.435-0.465 (0.48-0.50).

Discussion

The Australian material runs to *C. tetrachelatus* in Beier's (1963) key to the European fauna (notwithstanding the uncertainty of couplet 65 where one must determine the condition of the posterior eyes), and in most regards the specimens fit the available descriptions. However, as currently defined this species is extremely variable in size (e.g. pedipalpal femur length 0.48-0.75 mm; see summary of published measurements in Ćurčić 1972) and the possibility exists that more than one species has been confused under this name.

The number of setae on the posterior carapaceal margin has been cited as a specific character in the genus but considerable variation exists and this character should be used with caution. The Australian material of *C. tetrachelatus* varies from two long setae (4 ♀), two long setae and one microseta (1 ♂) to two long setae and two microsetae (1 ♂). Similar observations have been made by Hadži (1933), Vachon (1941a), Hoff (1951), Helversen (1966), Nelson (1975) and Callaini (1979).

Chthonius tetrachelatus is currently the only species of the genus to be recorded from Australia and is distinguished from all other known Australian chthoniid species by the dorsal depression of the chelal hand slightly anterior to trichobothria *ib* and *isb* (Vachon 1941a, fig. 14; Hoff 1949, fig. 14b), the feature that is diagnostic of the subgenus *Ephippiochthonius.* The genus *Chthonius* is distinguished from the other genera known to occur in Australia by the presence of short, pennate coxal spines on both coxae II and III.

Acknowledgements

I wish to thank P. J. Gullan for reviewing the manuscript, Division of Entomology, CSIRO for research facilities, and the Australian Biological Resources Study for funds.

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CORRECTIONS TO A. F. ATKINS, 1984, 'A NEW GENUS *ANTIPODIA* (LEPIDOPTERA: HESPERIIDAE: TRAPEZITINAE) WITH COMMENTS ON ITS BIOLOGY AND RELATIONSHIPS'

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The following corrections are given for my paper (Atkins, 1984).

Page 49—reference given for Couchman and Couchman should be '1977' not '1978'.

Page 50, last paragraph—'Type. New South Wales:' should read 'Type. SOUTH AUSTRALIA: '.

On the same line 'Adrossan' should read 'Ardrossan'.

Page 52, 4th paragraph, 3rd line—'*Hesperilla atralba dactyliota* (Meyrick), Miskin 1891' should read '*Hesperilla dactyliota* (Meyrick), Miskin 1891'.

Page 56, 3rd paragraph, line 5—'. . . and the small, bright subspecies from . . .' should read'. . . and small, bright specimens recorded from . . .'.

4th paragraph—'The species assigned to *Antipodia* cannot be distinguished by the larval and pupal characters to trapezitine, . . .' should read 'Larval and pupal characters of the species assigned to *Antipodia* differ from those of the trapezitine, . . .'.

Page 58—references given for Couchman and Couchman should be '1977' and not '1978'.

I thank Mr L. E. Couchman for bringing to my notice some of these errors and to Mr E. D. Edwards for advice and information.

Reference

Atkins, A. F., 1984. A new genus *Antipodia* (Lepidoptera: Hesperiidae: Trapezitinae) with comments on its biology and relationships. *Aust. ent. Mag.* 11(3): 45-58.